ABSTRACT OF THE DISCLOSURE

A method and system for calibrating molecular arrays to a reference molecular array, and for subsequently calibrating the molecular arrays to maintain a constant signal-intensity-to-label-concentration ratio. In the first step of the two-step calibration method, a reference array coated with the fluorophore or chromophore used to label probe molecules is employed, while in the second step of the two-step method, a reference array coated with a stable dye is employed.